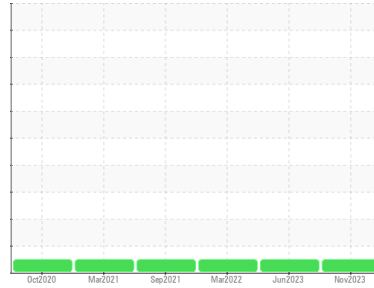




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
727007
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0102880	GFL0078513	GFL0046688
Sample Date	Client Info	21 Nov 2023	21 Jun 2023	09 Mar 2022
Machine Age	hrs	0	12843	9084
Oil Age	hrs	10569	0	425
Oil Changed	Client Info	N/A	N/A	Changed
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Water	WC Method >0.2	NEG	NEG	NEG
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >120	14	4	10
Chromium	ppm ASTM D5185(m) >20	0	0	<1
Nickel	ppm ASTM D5185(m) >5	<1	<1	<1
Titanium	ppm ASTM D5185(m) >2	0	0	<1
Silver	ppm ASTM D5185(m) >2	<1	0	0
Aluminum	ppm ASTM D5185(m) >20	3	<1	3
Lead	ppm ASTM D5185(m) >40	<1	0	<1
Copper	ppm ASTM D5185(m) >330	2	<1	1
Tin	ppm ASTM D5185(m) >15	<1	0	<1
Antimony	ppm ASTM D5185(m)	0	0	0
Vanadium	ppm ASTM D5185(m)	0	0	0
Beryllium	ppm ASTM D5185(m)	0	0	0
Cadmium	ppm ASTM D5185(m)	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 250	47	133	8
Barium	ppm ASTM D5185(m) 10	<1	0	0
Molybdenum	ppm ASTM D5185(m) 100	6	9	56
Manganese	ppm ASTM D5185(m)	0	0	<1
Magnesium	ppm ASTM D5185(m) 450	100	103	908
Calcium	ppm ASTM D5185(m) 3000	1991	2000	1010
Phosphorus	ppm ASTM D5185(m) 1150	891	962	982
Zinc	ppm ASTM D5185(m) 1350	1123	1086	1135
Sulfur	ppm ASTM D5185(m) 4250	2552	2796	2407
Lithium	ppm ASTM D5185(m)	<1	<1	<1

CONTAMINANTS

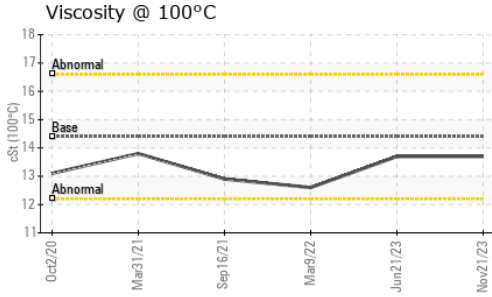
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >25	3	2	3
Sodium	ppm ASTM D5185(m) >216	7	2	3
Potassium	ppm ASTM D5185(m) >20	4	4	1

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% ASTM D7844* >4	0.5	0	0.2
Nitration	Abs/cm ASTM D7624* >20	9.1	6.6	7.8
Sulfation	Abs./1mm ASTM D7415* >30	24.5	20.6	20.8



OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs./1mm ASTM D7414*	>25	16.9	15.5

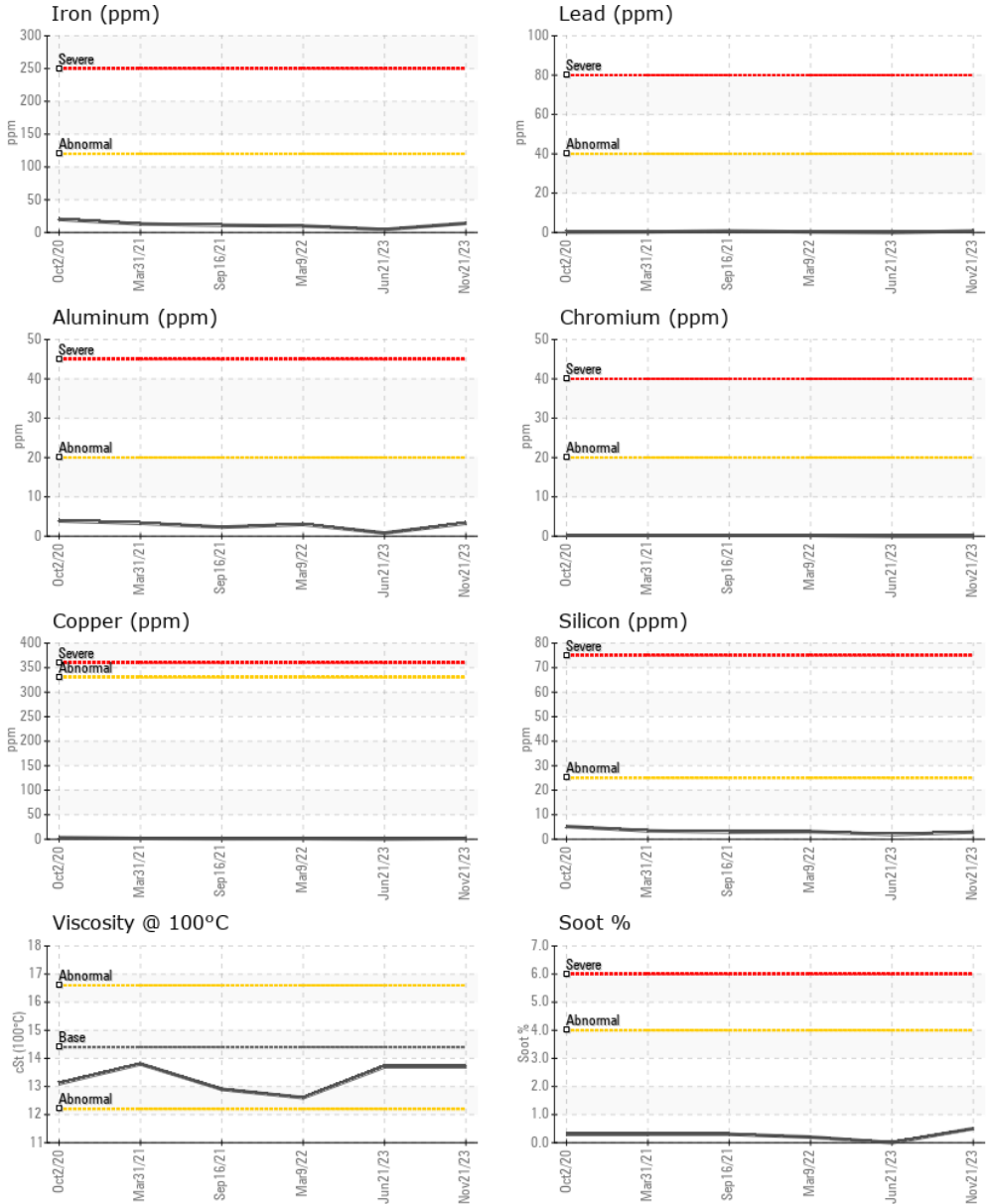
VISUAL

method	limit/base	current	history1	history2
Emulsified Water	scalar Visual*	>0.2	NEG	NEG
Free Water	scalar Visual*		NEG	NEG

FLUID PROPERTIES

method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D7279(m)	14.4	13.7	12.6

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 246 - Windsor**
Sample No. : GFL0102880 **Received** : 22 Nov 2023 2700 Deziel Dr
Lab Number : 02598089 **Diagnosed** : 22 Nov 2023 Windsor, ON
Unique Number : 5683169 **Diagnostician** : Wes Davis CA N8W 5H8
Test Package : MOB 1

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

Contact: Dave Varga
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 T: (519)944-8009
 F: